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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/543,844	04/05/2000	Toshitsugo Ono	P00,0251	6442

7590

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EXAMINER

FERGUSON, LAWRENCE D

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 02/28/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/543,844

Applicant(s)

ONO ET AL.

Examiner

Lawrence D Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment mailed December 30, 2002.

Claim 3 is canceled, claims 1, 5, 11 and 13-14 were amended, claims 21-28 were added rendering claims 1-2 and 4-28 pending.

Claim Rejections – 35 USC 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In claim 5, the term, H is indefinite because it lacks a requisite degree.

b. In claim 23, $(\lambda/NA^3/t)$ is indefinite. λ , NA and t are undefined as they are not described in the independent claim.

Claim Rejections – 35 USC § 103(a)

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 4-9, 11, 14-16 and 18-19, 21-22, 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (U.S. 5,536,425) in view of Aratani et al (U.S. 6,063,468).

6. Konda teaches recording mediums which comprise non-magnetic support and a layer formed on the support on the surface having a coefficient of friction (column 1, lines 16-22), Kondo discloses perfluoropolyether derivatives for recording mediums (column 1, lines 62-64). Konda discloses the formula $R-COO-R1-N+R2R3R4$ where R, R2, R3 and R4 represents H or a hydrocarbon group having from 6 to 22 carbon atoms (column 2, lines 8-17) as a derivative used in recording mediums. Konda discloses a top coat layer (column 2, line 58) and non-magnetic supports including ceramic and glass substrates (column 8, lines 35-41) which constitutes a light transmitting layer that can be illuminated by light along with resin binders (column 8, lines 51-59) including organic materials. Konda discloses a non-magnetic support made by sputtering (column 9, lines 9-10) with a coat layer formed on the support (column 9, lines 14-15). Konda discloses a coefficient of friction measurement (column 11, lines 55-56). In claim 21, 'a skew correcting member formed on a second of said two major surfaces of said support is a product by process claim limitation. Additionally, in claim 21, 'said skew correcting member is formed by coating and curing a UV curable resin' is a product by process claim limitation. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in

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the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966. A dynamic frictional coefficient equal to 0.3 or less includes 0. Konda does not disclose the precise thicknesses, thickness variation, hardness, surface resistance, surface tension or moisture absorption.

Aratani teaches an optical recording medium with a light transmissive layer and recording portion (column 6, lines 39-47) teaching a varying skew member (column 2, lines 23-30 and column 10, line 61). Aratani teaches a pencil hardness of at least 'H' (column 4, lines 37-38) where the light transmissive layer is formed of polycarbonate with a thickness of 100 micrometers (column 7, lines 14-15). The reference teaches surface resistance (column 7, line 42) thickness range as in claim 4 (column 1, lines 25-30). Aratani teaches forming the surface layer with SiN by sputtering and having a coefficient of friction less than or equal to 0.3 (column 11, lines 34-50) having a surface tension (column 12, line 11) and water absorption (column 12, lines 34-37). Konda and Aratani are analogous art because they are from the same field of optical recording mediums. It would have been obvious to one of ordinary skill in the art to include the varying skew member in the optical recording medium of Konda because Aratani teaches it can be corrected by reducing the thickness of the light transmitting layer (column 2, lines 29-30). It would have been obvious to one of ordinary skill in the art to include the surface tension and pencil hardness of at least 'H' to increase durability of the optical recording medium. Additionally, it would have been obvious to one of

ordinary skill in the art to include the water absorption because Aratani teaches it helps reduce corrosion of the recording layer (column 12, lines 31-34).

Claim Rejections – 35 USC § 103(a)

7. Claims 10, 12-13, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (U.S. 5,536,425) in view of Aratani et al (U.S. 6,063,468) further in view of Akutsu (U.S. 5,864,357).

8. Konda in view of Aratani is relied upon for claims 1-2, 4-9, 11, 14-16 and 18-19, 21-22, 24-28. Konda does not disclose inorganic material made of SiO_x , said surface layer formed of an electrically conductive material consisting of indium oxide or tin oxide or In or Sn.

Akutsu teaches a light transmitting electrically conductive layer (column 2, lines 49-50) consisting of SnO_2 , In_2O_3 (column 4, lines 47-49) and silicon nitride and silicon carbide (column 5, lines 59-60) used in a recording material (column 7, line 21). Akutsu teaches using a spray coating method (column 4, line 52).

All of the prior art are analogous art because they are from the same field of recording media. It would have been obvious to one of ordinary skill in the art to include the light transmitting electrically conductive layer consisting of SnO_2 , In_2O_3 , silicon nitride and silicon carbide in the recording medium of Konda because Akutsu teaches that these components are used to increase the resistivity and hardness of the recording medium.

Response to Arguments

9. Applicant's arguments in regards to 35 USC 112, first paragraph have overcome the rejection. Applicant's amendments in regards to 35 USC 112, second paragraph have overcome the rejection; however, due to 'H' being an amount determined experimentally where the optical disc is not damaged on collision results in 'H' lacking a requisite degree.

Applicant's arguments of rejection under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (U.S. 5,536,425) has been considered but are moot based on grounds of new rejection.

Applicant's remarks to rejection under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (U.S. 5,536,425) in view of Akutsu (U.S. 5,864,357) has been considered but is moot based on grounds of new rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is (703) 305-9978. The examiner can normally be reached on Monday through Friday 8:30 AM – 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. Please allow the examiner twenty-four hours to return your call.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for

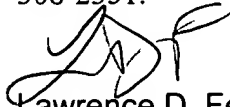
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After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)

308-2351.



Lawrence D. Ferguson
Examiner
Art Unit 1774

CYNTHIA M. KELLY
SENIOR PATENT EXAMINER
TECHNOLOGY CENTER 1700

